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- (71) Applicant (for all designated States except US): STRUCTURAL GENOMIX, INC. [US/US]; 10505 Roselle Street, San Diego, CA 92121 (US).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): LEWIS, Hal, A. [US/US]; 10935 Caminito Alvarez, San Diego, CA 92126

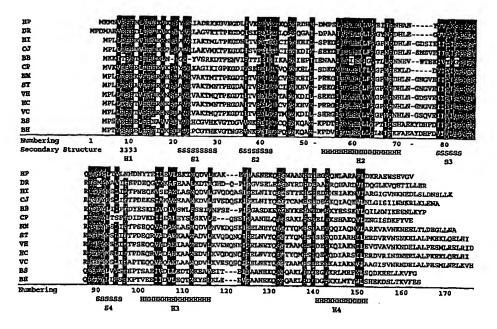
- (74) Agents: BALDWIN, Geraldine, F. et al.; Pennie & Edmonds LLP, 1155 Avenue of the Americas, New York, NY 10036 (US).
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[Continued on next page]

(54) Title: CRYSTALS AND STRUCTURE OF LUXS



(57) Abstract: The present invention provides crystalline LuxS, machine readable media embedded with the three-dimensional atomic structure coordinates of LuxS, and subsets thereof, and methods of using them.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

PCT/US 01/30684

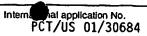
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According t	o International Patent Classification (IPC) or to both national classif	ication and IPC			
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Minimum documentation searched (classification system followed by classification symbols) IPC 7 C07K					
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	ata base consulted during the international search (name of data b	ase and, where practical, search t	erms used)		
MEDLINE, BIOSIS					
C. DOCUM	ENTS CONSIDERED TO BE RELEVANT				
Category •	Citation of document, with indication, where appropriate, of the re	elevant passages	Relevant to claim No.		
P,X	HILGERS MARK T ET AL: "Crystal of the quorum-sensing protein Lu a catalytic metal site." PROCEEDINGS OF THE NATIONAL ACAD SCIENCES OF THE UNITED STATES, vol. 98, no. 20, 25 September 2001 (2001-09-25), 11169-11174, XP002226665 September 25, 2001 ISSN: 0027-8424 the whole document	xS reveals EMY OF	1-77		
Further documents are listed in the continuation of box C. Patent family members are listed in annex.					
Special car	egories of cited documents :	"T" later document published after	er the International filling date		
'A' document defining the general state of the art which is not or priority date and not in conflict with the application but					
"E" earlier document but published on or after the international "Y" document of particular releases the element invention					
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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentiaan 2		Authorized officer			
	Nt 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Lüdemann, S	,		

INTERNATIONAL SEARCH REPORT

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	etion) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	tegory • Citation of document, with Indication, where appropriate, of the relevant passages Relevant to claim No.		
Ρ,Χ	LEWIS H A ET AL: "A structural genomics approach to the study of quorum sensing: crystal structures of three LuxS orthologs." STRUCTURE (CAMBRIDGE, MASS.: 2001) UNITED STATES JUN 2001, vol. 9, no. 6, June 2001 (2001-06), pages 527-537, XP002226710 ISSN: 0969-2126 the whole document		1-77
A	BASSLER B L: "How bacteria talk to each other: regulation of gene expression by quorum sensing." CURRENT OPINION IN MICROBIOLOGY. ENGLAND DEC 1999, vol. 2, no. 6, December 1999 (1999-12), pages 582-587, XP002226666 ISSN: 1369-5274 the whole document		1-77
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INTERNATIONAL SEARCH REPORT



Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)			
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
1. 🗶	Claims Nos.: 63-71 because they relate to subject matter not required to be searched by this Authority, namely:			
	see FURTHER INFORMATION sheet PCT/ISA/210			
	Claims Nos.: 29-34, 42-44 because they relate to parts of the International Application that do not compty with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: see FURTHER INFORMATION sheet PCT/ISA/210			
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).			
Box II	Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)			
This Inter	mational Searching Authority found multiple Inventions In this international application, as follows:			
1.	As all required additional search fees were timely paid by the applicant, this international Search Report covers all searchable claims.			
	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.			
	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:			
	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:			
Remark (The additional search fees were accompanied by the applicant's protest. No protest accompanied the payment of additional search fees.			

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 63-71

Concerning claims 63-71, applicant's attention is drawn to R. 39(v) PCT. The subject-matter of claims 63-71 refers only to presentation of structural information on a machine-readable medium and is not regarded as patentable invention within the meaning of Rule 39(v) PCT. Thus, the above mentioned claims will not be searched.

Continuation of Box I.2

Claims Nos.: 29-34, 42-44

Present claims 42-44 relate to a product "identified, designed or made according to the method of any of claims 1-41". Since none of the product has been disclosed in the application, the claims so lack support within the meaning of Art. 6 PCT, and the application so lacks disclosure within the meaning of Art. 5 PCT, that a meaningful search of said claims is impossible.

Present claims 29-34 relate to an extremely large number of possible methods. Due to the vague and unclear term "the binding pocket of LuxS protein or a binding pocket homolog" the claims contain so many options that a lack of clarity (and/or conciseness) within the meaning of Article 6 PCT arises to such an extent as to render a meaningful search of the claims impossible. Consequently, the search has been carried out for those parts of the application which do appear to be clear, namely claims 1, 14, 15 and 21.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.